

**In The United States Patent and Trademark Office
On Appeal From The Examiner To The Board
of Patent Appeals and Interferences**

In re Application of: Hung-ying Tyan, et al.
Serial No.: 10/828,570
Filing Date: April 20, 2004
Group Art Unit: 2613
Confirmation No. 5277
Examiner: Quan Zhen Wang
Title: *Method and System for Managing Network Traffic*

Mail Stop Appeal Brief - Patents

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Response to Notification of Noncompliant Appeal Brief

Appellants have appealed to the Board of Patent Appeals and Interferences from the decision of the Examiner April 4, 2008 finally rejecting Claims 1-7, 9-15, 17-23, 25-31, and 33, which are all pending in this case. Appellants filed an Appeal Brief on October 2, 2008.

The Examiner mailed a notification of Notice of Non-Compliant Appeal Brief on November 3, 2008, in which the Examiner asserts that the Appeal Brief filed on October 2, 2008 does not comply with 37 C.F.R. § 41.37(c)(1)(iii).

To expedite this Appeal, Appellants provide the attached Replacement Status of Claims. See M.P.E.P. ch. 1205.03 (Rev. 3, August 2005).

Status of Claims

Claims 1-7, 9-15, 17-23, 25-31, and 33 are pending in this application. Claims 8, 16, 24, and 32 were previously canceled and are no longer pending in this application. Claims 1-7, 9-15, 17-23, 25-31, and 33 stand rejected pursuant to a final Office Action transmitted April 4, 2008 (the "*Office Action*") and are all presented for appeal. All pending claims are shown in Appendix A, attached hereto, along with an indication of the status of those claims.

Conclusion

Appellants respectfully request the Board of Patent Appeals and Interferences to reverse the Examiner's final rejection of the pending claims and instruct the Examiner to issue a notice of allowance of all pending claims.

Appellants believe no fees are due. However, the Commissioner is hereby authorized to charge any fee due and credit any overpayment to Deposit Account No. 02-0384 of BAKER BOTTS L.L.P.

Respectfully submitted,
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Appendix A: Claims on Appeal

1. (Previously presented) A method for managing network traffic, comprising:
provisioning an internet protocol (IP) network for communicating traffic, the IP network comprising a plurality of nodes coupled by IP links;
monitoring the IP network for a congestion event;
upon detecting a congestion event, selecting a label switched path (LSP) of the IP network for reroute;
computing a hybrid path route for the selected LSP between a first node and a second node of the plurality of nodes, the hybrid path route comprising at least one IP link and at least one lightpath of a wavelength division multiplex (WDM) topology coupled to the IP network;
determining whether performance of the hybrid path route for the selected LSP reduces costs; and
if the hybrid path route reduces costs:
activating a new IP link on each of the at least one lightpaths of the WDM topology; and
rerouting the selected LSP according to the hybrid path route.
2. (Original) The method of Claim 1, further comprising decommissioning an idle IP link after rerouting the selected LSP.
3. (Original) The method of Claim 1:
further comprising receiving a transformed topology constructed by an optical transport service provider of the WDM topology, the transformed topology comprising a subset of available lightpaths of the WDM topology; and
wherein the hybrid path is computed based on the transformed topology.
4. (Original) The method of Claim 1, wherein determining whether performance of the hybrid path route for the selected LSP reduces costs comprises accounting for a cost associated with each IP link and each lightpath of the hybrid path route.

5. (Original) The method of Claim 1, wherein activating a new IP link on each of the at least one lightpaths of the WDM topology comprises:

allocating an unused router port on each end of each of the at least one lightpaths; and
activating the allocated router ports with respective established lightpaths.

6. (Original) The method of Claim 1, wherein each of the plurality of nodes of the IP network comprises an IP router.

7. (Original) The method of Claim 1, wherein each of the lightpaths of the WDM topology couples optical crossconnects of the WDM topology.

8. (Canceled)

9. (Previously presented) A system for managing network traffic, comprising:
an internet protocol (IP) network for communicating traffic, the IP network comprising a plurality of nodes coupled by IP links;
a wavelength division multiplex (WDM) topology coupled to the IP network, the WDM topology comprising a plurality of lightpaths operable to communicate optical traffic;
and
a controller operable to:
provision the IP network for communicating traffic;
monitor the IP network for a congestion event;
upon detecting a congestion event, select a label switched path (LSP) of the IP network for reroute;
compute a hybrid path route for the selected LSP between a first node and a second node of the plurality of nodes, the hybrid path route comprising at least one of the IP links and at least one of the plurality of lightpaths of the WDM topology;
determine whether performance of the hybrid path route for the selected LSP reduces costs; and
if the hybrid path route reduces costs:
activate a new IP link on each of the at least one lightpaths of the plurality of lightpaths of the WDM topology; and
reroute the selected LSP according to the hybrid path route.

10. (Original) The system of Claim 9, wherein the controller is further operable to decommission an idle IP link after rerouting the selected LSP.

11. (Original) The system of Claim 9, wherein:
the controller is further operable to receive a transformed topology constructed by an optical transport service provider of the WDM topology, the transformed topology comprising a subset of available lightpaths of the WDM topology; and
wherein the hybrid path is computed based on the transformed topology.

12. (Original) The system of Claim 9, wherein a controller operable to determine whether performance of the hybrid path route for the selected LSP reduces costs comprises a controller operable to account for a cost associated with each IP link and each lightpath of the hybrid path route.

13. (Original) The system of Claim 9, wherein a controller operable to activate a new IP link on each of the at least one lightpaths of the plurality of lightpaths of the WDM topology comprises a controller operable to:

allocate an unused router port on each end of each of the at least one lightpaths; and
activate the allocated router ports with respective established lightpaths.

14. (Original) The system of Claim 9, wherein each of the plurality of nodes of the IP network comprises an IP router.

15. (Original) The system of Claim 9, wherein each of the plurality of lightpaths of the WDM topology couples optical crossconnects of the WDM topology.

16. (Canceled)

17. (Previously presented) Logic for managing network traffic, the logic encoded in computer readable media and operable when executed to:

provision an internet protocol (IP) network for communicating traffic, the IP network comprising a plurality of nodes coupled by IP links;

monitor the IP network for a congestion event;

upon detecting a congestion event, select a label switched path (LSP) of the IP network for reroute;

compute a hybrid path route for the selected LSP between a first node and a second node of the plurality of nodes, the hybrid path route comprising at least one IP link and at least one lightpath of a wavelength division multiplex (WDM) topology coupled to the IP network;

determine whether performance of the hybrid path route for the selected LSP reduces costs; and

if the hybrid path route reduces costs:

activate a new IP link on each of the at least one lightpaths of the WDM topology; and

reroute the selected LSP according to the hybrid path route.

18. (Original) The logic of Claim 17, further operable when executed to decommission an idle IP link after rerouting the selected LSP.

19. (Original) The logic of Claim 17:

further operable when executed to receive a transformed topology constructed by an optical transport service provider of the WDM topology, the transformed topology comprising a subset of available lightpaths of the WDM topology; and

wherein the hybrid path is computed based on the transformed topology.

20. (Original) The logic of Claim 17, wherein logic operable when executed to determine whether performance of the hybrid path route for the selected LSP reduces costs comprises logic operable when executed to account for a cost associated with each IP link and each lightpath of the hybrid path route.

21. (Original) The logic of Claim 17, wherein logic operable when executed to activate a new IP link on each of the at least one lightpaths of the WDM topology comprises logic operable when executed to:

allocate an unused router port on each end of each of the at least one lightpaths; and
activate the allocated router ports with respective established lightpaths.

22. (Original) The logic of Claim 17, wherein each of the plurality of nodes of the IP network comprises an IP router.

23. (Original) The logic of Claim 17, wherein each of the lightpaths of the WDM topology couples optical crossconnects of the WDM topology.

24. (Canceled)

25. (Original) A system for managing network traffic, comprising:
means for provisioning an internet protocol (IP) network for communicating traffic,
the IP network comprising a plurality of nodes coupled by IP links;
means for monitoring the IP network for a congestion event;
means for, upon detecting a congestion event, selecting a label switched path (LSP) of
the IP network for reroute;
means for computing a hybrid path route for the selected LSP between a first node
and a second node of the plurality of nodes, the hybrid path route comprising at least one IP
link and at least one lightpath of a wavelength division multiplex (WDM) topology coupled
to the IP network;
means for determining whether performance of the hybrid path route for the selected
LSP reduces costs; and
if the hybrid path route reduces costs:
means for activating a new IP link on each of the at least one lightpaths of the
WDM topology; and
means for rerouting the selected LSP according to the hybrid path route.

26. (Original) The system of Claim 25, further comprising means for
decommissioning an idle IP link after rerouting the selected LSP.

27. (Original) The system of Claim 25:
further comprising means for receiving a transformed topology constructed by an
optical transport service provider of the WDM topology, the transformed topology
comprising a subset of available lightpaths of the WDM topology; and
wherein the hybrid path is computed based on the transformed topology.

28. (Original) The system of Claim 25, wherein means for determining whether
performance of the hybrid path route for the selected LSP reduces costs comprises means for
accounting for a cost associated with each IP link and each lightpath of the hybrid path route.

29. (Original) The system of Claim 25, wherein means for activating a new IP link on each of the at least one lightpaths of the WDM topology comprises:

means for allocating an unused router port on each end of each of the at least one lightpaths; and

means for activating the allocated router ports with respective established lightpaths.

30. (Original) The system of Claim 25, wherein each of the plurality of nodes of the IP network comprises an IP router.

31. (Original) The method of Claim 25, wherein each of the lightpaths of the WDM topology couples optical crossconnects of the WDM topology.

32. (Canceled)

33. (Original) A method for managing network traffic, comprising:

- provisioning an internet protocol (IP) network for communicating traffic, the IP network comprising a plurality of nodes coupled by IP links, each of the plurality of nodes comprising an IP router;
- monitoring the IP network for a congestion event;
- upon detecting a congestion event, selecting a label switched path (LSP) of the IP network for reroute;
- receiving a transformed topology constructed by an optical transport service provider of a wavelength division multiplex (WDM) topology, the transformed topology comprising a subset of available lightpaths of the WDM topology, each lightpath of the WDM topology coupling optical crossconnects of the WDM topology;
- computing, based on the transformed topology, a hybrid path route for the selected LSP between a first node and a second node of the plurality of nodes, the hybrid path route comprising at least one IP link and at least one lightpath of the WDM topology coupled to the IP network;
- determining whether performance of the hybrid path route for the selected LSP reduces costs;
- if the hybrid path route reduces costs:
 - activating a new IP link on each of the at least one lightpaths of the WDM topology; and
 - rerouting the selected LSP according to the hybrid path route; and
 - decommissioning an idle IP link after rerouting the selected LSP.